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CD8 α-chain sequences

NM_001768 & M27161 Homo sapiens (Human) Complete CD8 alpha mRNA

Predicted polypeptide sequence

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQ

VLLSNPTSGCSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDTQRFSGKRLGDTFVLTL

SDFRRENEGYYFCSALSNSIMYFSHFVPVFLPAKPTTTPAPRPPTPAPTIASQPLSLR

PEACRPAAGGAVHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNRRRVCKCP

RPVVKSGDKPSLSARYV

1 gaaatcagge teegggeegg eegaagggeg eaacttteee eeeteggege eeeaeegg 61 eeegegegee teeeetegge eeegagette gageeaagea gegteetggg gageggete 121 tggeettace agtgaeegee ttgeteetge egetggeett getgeteeae geegeeagge 181 egageeagtt eegggtgeg eegetggate ggaeetggaa eetgggega acagtggag 241 tgaagtgeea ggtgetget teeaaceega egtegggetg etegtggete tteeageege 301 geggegeege egeeagteee acetteetee tatacetete eeaaaacaag eeeaaggeg 361 eegagggget ggaeaceeag eggttetegg geaagaggtt gggggaeace ttegteete 421 eeetgagega etteegeega gagaaegagg getactattt etgeteggee etgageaact 481 eeateatgta etteageeae ttegtgeegg tetteetgee agegaageee aceaegaege 541 eagegeegg aceaeeaaca eeggegeeea eeategegte geageeeetg teeetgeg 601 eagaggegtg eeggeeageg geggggggeg eagtgeacae gagggggetg gaetteg 661 gtgatateta eatetgggeg eeettggeeg ggaetttgtgg ggteettete etgteaetgg 721 ttateaceet ttaetgeaae eacaggaace gaagaegtgt ttgeaaatgt eeeggeetg 721 ttateaceet ttaetgeaae gagateette ettttgaggg ageaagteet teeettteat 901 tittteeagt etteeteeet gtgtatteat teteatgatt attattttag tgggggeggg 961 gtgggaaaga ttaettitte tttatgtgtt tgaegggaaa eaaaaetagg taaaatetae 1021 agtaeaceae aagggteaea atactgttg eggeacateg eggtagggeg tggaaagge 1081 eaggeeagag etaeeegeag agtteteaga ateatgetga gagagetgga ggeaceea 1021 tgateaaagg eacacageaa gtteteaga ateatgetga gagagetgga ggeaceea 1021 tgateaaagg eacacageaa gteagggttg gageagtage tggaaggaee ttgteteee 1261 geteaggget ettteeteea eaceatteag gtetttettte eegaggeee ttgteteee		
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type 1 type 1 type 2 ty	121	tggccttacc agtgaccgcc ttgctcctgc cgctggcctt gctgctccac gccgccaggc
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2041 aatatgtett tettittiaa atagggtigt aetatgetgt tatgagtgge titaatgaat
2101 aaacatttgt agcatcctct ttaatgggta aacagcaaaa aaaaaaaaaa
2161 ааааааааа ааааааааа аааааааааа ааааааа
2221 aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa

NM_171827

Homo sapiens secreted protein derived from alternate transcript

Predicted polypeptide

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQVLLSNPTSGCSWLFQPRGAAASPTFL LYLSQNKPKAAEGLDTQRFSGKRLGDTFVLTLSDFRRENEGYYFCSALSNSIMYFSHFVPVFLPAKPTTT PAPRPPTPAPTIASQPLSLRPEACRPAAGGAGNRRRVCKCPRPVVKSGDKPSLSARYV

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541 cagegeegeg accaecaaca eeggegeeca ceategegte geageeetg teetgegee
601 cagaggegtg ceggecageg geggggggeg cagggaaceg aagaegtgtt tgcaaatgte
661 cccggcctgt ggtcaaatcg ggagacaagc ccagcctttc ggcgagatac gtctaaccct
721 gtgcaacagc cactacatta cttcaaactg agatccttcc ttttgaggga gcaagtcctt
781 ccctttcatt ttttccagtc ttcctccctg tgtattcatt ctcatgatta ttattttagt
841 gggggcgggg tgggaaagat tactttttct ttatgtgttt gacgggaaac aaaactaggt
901 aaaatctaca gtacaccaca agggtcacaa tactgttgtg cgcacatcgc ggtagggcgt
961 ggaaaggggc aggccagagc tacccgcaga gttctcagaa tcatgctgag agagctggag
1021 gcacccatgc cateteaacc tetteccege cegttttaca aagggggagg ctaaagecca
1081 gagacagett gateaaagge acacageaag teagggttgg ageagtaget ggagggacet
1141 tgtctcccag ctcagggctc tttcctccac accattcagg tctttctttc cgaggcccct
1201 gtctcagggt gaggtgcttg agtctccaac ggcaagggaa caagtacttc ttgatacctg
1261 ggatactgtg cccagagcct cgaggaggta atgaattaaa gaagagaact gcctttggca
1321 gagttctata atgtaaacaa tatcagactt tttttttta taatcaagcc taaaattgta
1381 tagacctaaa ataaaatgaa gtggtgagct taaccctgga aaatgaatcc ctctatctct
1441 aaagaaaatc tctgtgaaac ccctatgtgg aggcggaatt gctctcccag cccttgcatt
1501 gcagaggggc ccatgaaaga ggacaggcta cccctttaca aatagaattt gagcatcagt
1561 gaggttaaac taaggccctc ttgaatctct gaatttgaga tacaaacatg ttcctgggat
1621 cactgatgac tttttatact ttgtaaagac aattgttgga gagcccctca cacagccctg
1681 gcctctgctc aactagcaga tacagggatg aggcagacct gactctctta aggaggctga

- 1741 gagcccaaac tgctgtccca aacatgcact tccttgctta aggtatggta caagcaatgc
- 1801 ctgcccattg gagagaaaaa acttaagtag ataaggaaat aagaaccact cataattctt
- 1861 caccttagga ataatctcct gttaatatgg tgtacattct tcctgattat titctacaca
- 1921 tacatgtaaa atatgtcttt cttttttaaa tagggttgta ctatgctgtt atgagtggct

X60223 Pongo pygmaeus (Orangutan) Complete CD8 alpha mRNA

Predicted polypeptide

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQ
VLLSNPTSGCSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDTQRFSGKRLGDTFVLTL
SDFRRENEGYYFCSALSNSIMYFSHFVPVFLPVHTRGLDFACDIYIWAPLAGTCGVLL
LSLVITLYCNHRNRRRVCKCPRPVVKSGGKPSLSERYV

- 1 atggccttac ccgtgaccgc cttgctcctg ccgctggcct tgctgctcca cgccgccagg
- 61 ccgagccagt tccgggtgtc gccgctggat cggacctgga acctgggcga gacggtggag
- 121 ctgaagtgcc aggtgctgct gtccaacccg acgtctggct gctcctggct cttccagccg
- 181 cgtggcgccg ccgccagtcc caccttcctc ctatacctct cccaaaacaa gcccaaggcg
- 241 gccgaggggc tggacaccca gcggttctcg ggcaagaggt tgggggacac cttcgtcctc
- 301 accetgageg actteegeeg ggagaaegaa ggetaetatt tetgetegge eetgageaae
- 361 tecateatgt aetteageea ettegtgeeg gtetteetge eagtgeacae gagggggetg
- 421 gacttcgcct gtgatatcta catctgggcg cccttggccg ggacctgtgg ggtccttctc
- 481 ctgtcactgg ttatcaccct ttactgcaac cacaggaacc gaagacgtgt ttgcaaatgt
- 541 ccccggcctg tggtcaaatc tggaggcaag cccagccttt cggagagata tgtctaa

XM_132621 & BC030679 & U34881 Mus musculus (Mouse) Complete CD8 alpha mRNA

Predicted polypeptide

MASPLTRFLSLNLLLLGESIILGSGEAKPQAPELRIFPKKMDAE

LGQKVDLVCEVLGSVSQGCSWLFQNSSSKLPQPTFVVYMASSHNKITWDEKLNSSKLF

SAMRDTNNKYVLTLNKFSKENEGYYFCSVISNSVMYFSSVVPVLQKVNSTTTKPVLRT

PSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYIWAPLAGICVALLLSLIITLIC

YHRSRKRVCKCPSIACLCLKLQGSKWYESVICSALAVSIRCNKSKSGELPLAVHLDIR

APCKNWEIAGSLVERYGKSGKHSPLSLKAVVESN

mRNA

- 1 atggcctcac cgttgacccg ctttctgtcg ctgaacctgc tgctgctggg tgagtcgatt
- 61 atcctgggga gtggagaage taagccacag gcacccgaac tccgaatctt tccaaagaaa
- 121 atggacgccg aacttggtca gaaggtggac ctggtatgtg aagtgttggg gtccgtttcg
- 181 caaggatget ettggetett ecagaactee ageteeaaac teeeceagee eacettegtt
- 241 gtctatatgg cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa
- 301 ctgttttctg ccatgaggga cacgaataat aagtacgttc tcaccctgaa caagttcagc
- 361 aaggaaaacg aaggctacta tttctgctca gtcatcagca actcggtgat gtacttcagt
- 421 tctgtcgtgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact
- 481 ccctcacctg tgcaccctac cgggacatct cagccccaga gaccagaaga ttgtcggccc
- 541 cgtggctcag tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc
- 601 ttggccggaa tctgcgtggc ccttctgctg tccttgatca tcactctcat ctgctaccac
- 661 aggagccgaa agcgtgtttg caaatgtccc agtatagcat gcttgtgcct caaactgcaa
- 721 ggaagcaagt ggtatgaatc tgtgatctgc tcagctctgg ctgtgagcat cagatgtaac
- 781 aaatcaaagt caggagaact gcctttagcg gtgcacctgg acatcagagc cccttgtaag
- 901 ctgtcactga aggctgtagt agaatccaat taa

Predcited polypeptide

MDAELGQKVDLVCEVLGSVSQGCSWLFQNSSSKLPQPTFVVYMA
SSHNKITWDEKLNSSKLFSAMRDTNNKYVLTLNKFSKENEGYYFCSVISNSVMYFSSV
VPVLQKVNSTTTKPVLRTPSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYIWAP
LAGICVALLLSLIITLICYHRSRKRVCKCPRPLVRQEGKPRPSEKIV

mRNA

1 cgttgacccg ctttctgtcg ctgaacctgc tgctgctggg tgagtcgatt atcctgggga
61 gtggagaagc taagccacag gcacccgaac tccgaatctt tccaaagaaa atggacgccg
121 aacttggtca gaaggtggac ctggtatgtg aagtgttggg gtccgtttcg caaggatgct
181 cttggetett ecagaactee ageteeaaac teeceeagee eacettegtt gtetatatgg
241 cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa ctgttttctg
301 ccatgaggga cacgaataat aagtacgttc tcaccctgaa caagttcagc aaggaaaacg
361 aaggetacta tttetgetea gteateagea aeteggtgat gtaetteagt tetgtegtge
421 cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact ccctcacctg
481 tgcaccctac egggacatet cagecccaga gaccagaaga ttgteggeec egtggeteag
541 tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc ttggccggaa
601 tctgcgtggc ccttctgctg tccttgatca tcactctcat ctgctaccac aggagccgaa
661 agcgtgtttg caaatgtccc aggccgctag tcagacagga aggcaagccc agaccttcag
721 agaaaattgt gtaaaatggc accgccagga agctacaact actacatgac ttcagatctc
781 ttcttgcaag aggccaggcc ctcctttttc aagtttcctg ctgtcttatg tattgccctc
841 tgtattgttt tagtaggggt gtgatgggga cagttccttt ttctttatga attctctttg
901 acacaaagca tacttgtatg catacaatgg gagtaatgag cagactgtaa caccagagct
961 agttccagtt tcggggtcca tgtcgctggt ggcctcagca cccacttgat ataaatctcc
1021 tgtctgccca tcatatagaa gaagctgaag atcagaggtg gaaacagcag gatctgtaga
1081 cccggagaga acccaagcta gaggaaccct cactgactgg tgcagggatc tcaccccat
141 cccctgaget etetgtttag gtatgtgtet ttagtatage atgettgtge eteaaactge
201 aaggaagcaa gtggtatgaa tetgtgatet geteagetet ggetgtgage atcagatgta
261 acaaatcaaa gtcaggagaa ctgcctttag cggtgcacct ggacatcaga gccccttgta
321 agaactggga aattgctggc agtctagtgg agcggtacgg taaatctgga aaacactccc
381 ctctgtcact gaaggetgta gtagaatcca attaaagcta ttcaaaccac aaaaaaaaaa
441 aaaaaaaaa aa

Predicted polypeptide

MASPLTRFLSLNLLLMGESIILGSGEAKPQAPELRIFPKKMDAE

LGQKVDLVCEVLGSVSQGCSWLFQNSSSKLPQPTFVVYMASSHNKITWDEKLNSSKLF

SAVRDTNNKYVLTLNKFSKENEGYYFCSVISNSVMYFSSVVPVLQKVNSTTTKPVLRT

PSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYIWAPLAGICVAPLLSLIITLIC

YHRSRKRVCKCPRPLVRQEGKPRPSEKIV

1 atggcctcac cgttgacccg ctttctgtcg ctgaacctgc tgctgatggg tgagtcgatt
61 atcctgggga gtggagaagc taagccacag gcacccgaac tccgaatctt tccaaagaaa
121 atggacgccg aacttggcca gaaggtggac ctggtatgtg aagtgttggg gtccgtttcg
181 caaggatget ettggetett eeagaactee ageteeaaac teeeceagee eacettegtt
241 gtctatatgg cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa
301 ctgttttctg ccgtgaggga cacgaataat aagtacgttc tcaccctgaa caagttcagc
361 aaggaaaacg aaggctacta tttctgctca gtcatcagca actcggtgat gtacttcagt
421 tctgtcgtgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact
481 ccctcacctg tgcaccctac cgggacatct cagccccaga gaccagaaga ttgtcggccc
541 cgtggctcag tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc
601 ttggccggaa tctgcgtggc ccctctgctg tccttgatca tcactctcat ctgctaccac
661 aggagccgaa agcgtgtttg caaatgtccc aggccgctag tcagacagga aggcaagccc
721 agacetteag agaaaattgt gtaa

NM_031538
Rattus norvegicus (Rat)
Complete CD8 alpha mRNA

Predicted polypeptide

MASRVICFLSLNLLLLDVITRLQVSGQLQLSPKKVDAEIGQEVK
LTCEVLRDTSQGCSWLFRNSSSELLQPTFIIYVSSSRSKLNDILDPNLFSARKENNKY
ILTLSKFSTKNQGYYFCSITSNSVMYFSPLVPVFQKVNSIITKPVTRAPTPVPPPTGT
PRPLRPEACRPGASGSVEGMGLGFACDIYIWAPLAGICAVLLLSLVITLICCHRNRRR
VCKCPRPLVKPRPSEKFV

- 1 ccctagagec etagettgac etaaggtget ggtgggaege acaccatgge etcaegggtg
 61 atetgettte tgtegetgaa cctgetactg etggatgtta teaetagget eeaggtttee
 121 ggaeagttae agttgteaec aaagaaagtg gaegetgaaa ttggeeagga ggtgaageta
- 181 acatgcgaag tgctgcggga cacttcgcaa ggatgctctt ggctcttccg gaactccagc
- 241 tecgaactee tecageceae etteateate tatgtatett eateeeggag eaagetgaae
- 301 gatatactgg atccgaatct-gttctctgcc cggaaggaaa acaacaaata catcctcacc
- 361 ctgagcaagt tcagcactaa aaaccaaggc tactatttct gctcaatcac cagcaactcg
- 421 gtgatgtact tcagtcctct ggtgccggtg tttcagaaag tgaactctat tatcaccaag
- 481 ccggtgacgc gagctcccac accagtgcct cctcctacag ggacaccccg gcccctacga
- 541 ccagaagett geegaeeegg ggegagtgge tcagtggagg gaatgggatt gggettegee
- 601 tgcgatattt acatctgggc accettggcc ggaatctgcg cggttcttct gctgtccctg
- 661 gtcatcactc tcatctgctg ccacaggaac cgaaggcgtg tttgcaaatg tcccaggccc
- 721 cttgtcaagc ccagaccttc agagaaattc gtgtaaaatg gcgccactag gaagccacaa
- 781 ctactacatg acttcagaga tttctcacaa gagaccgggc cctccttttt cagagtttcc
- 841 tgctggctta tatattgtcc tctgtattgt tttaggggta ggatggggac agttcctttt
- 901 tctttatgaa ttctctttga tacaaaacat acttgtatgc acacaatggg gtaaagatca
- 961 gactgtaaca ccagagatag tcccagtttc agggtcagcg tagctggtgg

AY303773
Cavia porcellus (Guinea Pig)
Complete CD8 alpha mRNA
Predicted polypeptide

MAPRGSAWLLLLPVALLLDAATAQGASQFRMSPRELVAQVGTKV

TLRCEVLVPNAPAGCSWLFQPRHDAKGPTFLLYHSASGTKLAPGLEQKRFSPSKSSNT
YTLTVNSFQKRDEGYYFCSVSGNMMLYFSPFVPVFLPAPRTTTPPPPPTTPTPSVQPT
SVRPETCVVSKGAAGARWLDLSCDVYIWAPLASTCAALLLALVITIICHRRNRQRVCK
CPRPQARSGGKPSPSGKLV

<u>mRNA</u>

1 geaactteee eactgegeat eccetggete etggtggete etgggegget ecetteaege
61 ctggactcca ggctctgccc tgcgccgagg agcgcgcgcc atggccccgc gaggaagcgc
121 ctggctgetg etgetgeegg tggecetget getegaegee geeaeggeee aaggtgeeag
181 teagtteega atgteacece gtgaactggt egegeaagte ggeaceaaag tgaceetgeg
241 ctgtgaggtg ctggtgccta acgcgccggc gggatgctcg tggctcttcc agccccgcca
301 cgacgccaaa ggtcccacct tectectgta ccatteggeg teegggacca agttggcccc
361 agggetggaa cagaagegat teageceete gaagageagt aacacetaca eeeteaeggt
421 gaacagette cagaagegag acgaaggeta etaettetge teggteteeg geaacatgat
481 getetaette agecegtteg tteeegtett eetgeeaget eetegeacea egaegeeece
541 tececetece accaegeega ecceeagegt geageceaeg teggtgegee eegagaegtg
601 tgtggtctct aagggcgcag caggtgcgag gtggctggat ctctcctgtg atgtctacat
661 ctgggcgccc ctggccagca catgcgcggc ccttctgctg gcactggtca tcacgatcat
721 ctgccaccgc aggaacagac aacgcgtttg caaatgtcct aggccccaag ccaggtctgg
781 aggcaaaccc agcccttcag ggaagttagt ctaacaacat ggcgcccagc ctgtgcgaag
841 ccactacatg actttatact gagatcattc cttggacagc aagtgctcct cttttgggtt
901 teceagtett cetteetatg tatttgttet eattactatt ttagtgggea tggggtggga
961 agagttgett tttegttaga caaaaaataa aaccatgtag catetgeage teacaagggt
1021 cacagggetg ttacctcaca caggggttag ggtagcaagc agggetetca ggtactggaa
1081 ttcactccct tccactcact tgagggtggg cagcacccac gggtcattta tccctcatca
1141 tgctcctcca cccacttgag ctcagatgcc acccaaagag cagtctatct aaacccaggc
1201 caaacacatg caactgettt ttgaaceega gageetaatt tatetgeaga gaatgeaagt
1261 gctcctttgt cacttatatc ttgtccatga cctttaataa atgtgctgct tttccctcaa
I321 aaaaaaaaaa

NM_174015 Bos taurus (Cow) Complete CD8 alpha mRNA

Predicted polypeptide

MASLLTALILPLALLLLDAAKVLGSLSFRMSPTQKETRLGEKVE

LQCELLQSGMATGCSWLRHIPGDDPRPTFLMYLSAQRVKLAEGLDPRHISGAKVSGTK

FQLTLSSFLQEDQGYYFCSVVSNSILYFSNFVPVFLPAKPATTPAMRPSSAAPTSAPQ

TRSVSPRSEVCRTSAGSAVDTSRLDFACNIYIWAPLVGTCGVLLLSLVITGICYRRNR

RRVCKCPRPVVRQGGKPNLSEKYV

1 gaattcggat ccaccatggc ctcactcttg accgccctga tcctgccgct ggccctgctg
61 ctgctcgatg ccgccaaggt cctcgggtcg ctctcgttcc ggatgtcgcc gacgcagaag
121 gagaccagac tgggcgagaa ggtggagctg caatgcgagt tgctgcagtc cggcatggcg
181 acagggtget cetggeteeg ceacatacce ggggacgace ceagacceae ettectaatg
241 taccteteeg eccaaegggt caagetagee gagggaetgg acceeagaca cattteegge
301 gccaaggtct ccggcaccaa attccagctc accetgagca gcttcctcca ggaggaccaa
361 ggctactatt tttgctcggt cgtgagcaac tcgatactgt acttcagtaa cttcgtgcct
421 gtcttcttgc cagcgaagcc ggccaccacg ccggcgatgc ggccatccag cgcggcgccc
481 accagegege egeagactag gteggtetet eegegateag aggtgtgeeg gaceteggeg
541 ggcagcgcag tggacacgag ccggctggac ttcgcctgca atatctacat ctgggctccc
601 ttggtcggga cetgcggcgt cetteteetg teattggtca teacaggcat etgetacege
661 cggaaccgaa gacgtgtctg caaatgtccc aggcctgtgg tccgacaagg aggcaagccc
721 aacctttcag agaaatatgt ctaacatggc gatgggcccc gtgtgacagc cactacaaga
781 cttcgcactg agaactetee tgagateett eeettttgat tteteeetge tteetteett
841 ctcgttatta ttatttttca tgggggtggg gtgggaagag ttactttttc tttattattt
901 actttgatac aaaacaagac actcgtgtct aaggcatacc acaagggtta tcatgctgtt
961 gtgctcccat actcgggtag agggcgggcg ggccagagct accgcaagct ctattctcag
1021 aacetggetg tgagaactgg tgggggeete ggeacecaet cageeceaae tteteeteea
1081 cccattttac aaaagaggac gctgaggccc agagatgggg aacagctgga tcagagtccc
1141 agcagggctc cacacaactg agatctttct tctggaggcc tctgtctcag cgtggggagc
1201 tggatctcaa gcctcagaga actagttatt tctgaagcat ctgtgataga cccatgactg
1261 cacccagage etegatgagg taatgaaata ggacaagaaa aettgacaga gttetgtgat
1321 actgctgaac aggatcagat tattttttt ataatcaagc atgaaatgat acagataata
1381 ggaattette caatgaagtg gaaggagtga aetgaatgat ggaaaatgag caacetgace
1441 tctgaagaaa atctctggga aatcccagcc tggagatggt tctcccagcc cttgtattgc

1501 agaaggaccc tcaaagagga gaggccaccc tctgcaagca tgatttgagc gttaggaaag
1561 ttgaatggag ttcaagtctc tctaaacatt gagattccgt attcaaacat gctcctgggt
1621 tatcggtgag tttttatagt ttgtaaaggg agaattgtga ccgagcagct ggcacaggcc
1681 ctggcacccc aggctagcag ctgagggaat gtgcagacac tggtgaggag gctacgagcc
1741 cagctgcagc cctacaaggc atttccttcc ttactgtgtt ctgcaaaaaaa tgcatgctca
1801 ctgggagaaa aaatgtagct aaggtagtaa gaatcatccg taattcttta cctcagggat
1861 aatccattgt taatattatg ggctacattc ttcctgatta ttttctgtgc cctacatata
1921 aaatatataa tttttaaaaa tgggattgca ctatgctttt ataaatggct ttaataaaca
1981 aacatttatg gcttacttct t

AY517855 Sus scrofa (Domestic pig) Complete CD8 alpha mRNA

Predicted polypeptide

VELQCELMHSNTLTSCSWLYQKPGAASKPIFLMYLSKTRNKTAE
GLDTRYISGYKANDNFYLILHRFREEDQGYYFCSFLSNSVLYFSNFMSVFLPAKPTKT
PTTPPPKRTPTKASHAVSVAPEVCRPSGNADPRKLDLACDLYNWAPLVGTSGILLLSL
VITIICHRRNRRRVCKCPRPVVRQGGKASPSERFI

KNA
1 gtggagetge agtgegagtt gatgeactee aacacactga caagetgtte etggetetae
61 cagaageegg gggetgeete caageeeate tteeteatgt aceteteeaa aaceeggaat
121 aagacageeg aggggetgga caccegttac atetetggtt acaaggeeaa tgacaactte
181 tacctcatcc tgcaccgctt ccgcgaggag gaccaaggct actatttctg ctcgttcctg
241 agcaactcgg ttttgtattt cagcaacttc atgtccgtct tcttgccagc aaagcccacc
301 aagacgccga ctacgccacc acccaagcgg actcccacca aagcgtcgca cgccgtgtct
361 gtggccccag aggtgtgccg gccttcgggc aacgcagacc cgaggaagct ggacctcgcc
421 tgtgatctgt acaactgggc gcccctggtt gggacctccg gcatccttct cctgtcactg
481 gtcatcacca tcatctgcca ccgccggaac agaagacgtg tttgcaaatg tcccaggccc
541 gtggtcagac agggaggcaa ggccagccct tcagagagat tcatctaaca tggcgacatg
601 ccccacgcag cagccactac aagacctcaa actgagacct ctccgggcag gagagcaagg
661 gteettteet tteegtttee eeageettee tteetteett aagtattett eteattatta
721 ttatttccat gggggtgggg tgggaagggt gactttttct ttgggtgttt actttaattg
781 acacaaaacg agactetate acgtetttgg tacgeegeag gggttegaac accgttgtge
841 tcacacaca aacggtgaag ggtgggcggg ccagagctac cgcaagctgt gttctcagaa
901 ccaggctgtg agagctggtg gggggtgggg aggccctcgg cacccacaca ggccaaacct
961 ctccccctgc cccccatttt acaaaggaat gaggctgagg cccagagatg gggggtggct
1021 ggatcagage cecageaagg etecaggete atectecaea geatttggge etetetteea
1081 ggggcetetg teteagetgg gggagetgtg teteceaeet caaggaaaca aggtttgett
1141 gggcacctgt gatagactct gcactgtgcc cagagccccg gggaggcaat gcagtaagtc
1201 aaggggacgt gacagaggtc tacggtgcag ttgaacagga tcagatatat tttttttaat
1261 aatccagcat gaagttatat agataacagg aattcctcaa atagagtgga agggctgaac
1321 tgaateetgg aaagtgaaca acaegaeete taaaggaaat eeaatgeaaa aaatetetaa
1381 gtggagacac agtggctete eeaggggace catgaaagag gggaageege eetttgcaaa
1441 tatgatttga gcatcgcgaa agtcgaacgg aggtcggccc tctctaaatg tgagatctga
1501 tatttgaacg tgctcctcgg atcattgatg ggtttttttg gtttgtaaac acagaattat
1561 gaccgagtag ctggcctccc ctggaccagc agctgtggat atggggcaga ctctgatgag

- 1621 gaggetagga geceagactg etgeceteta egegeattte etetettaac eatgttgtac
- 1681 aagaaatgcg tgctcgctgg aagaaaaaac taaataataa gagtcaccca taattcttta
- 1741 cttctggtat aactcattgt taatattatg gtgtacattc ttcctgatta ttttctatgc
- 1801 acgtatataa aatgtatact ttttaaaaat ggaattgtac tatgctttta gaagtggttt
- 1861 taataaacat ttctgctatg aaaaaaaaa a

D16536
Felis catus (cat)
Complete CD8 alpha mRNA
Predicted polypeptide

MASPVTAQLLPLALLHAAAAAGPSPFRLSPVRVEGRLGQRVEL
QCEVLLSSAAPGCTWLFQKNEPAARPIFLAYLSRSRTKLAEELDPKQISGQRIQDTLY
SLTLHRFRKEEEGYYFCSVVSNSVLYFSAFVPVFLPVKPTTTPAPRPPTQAPITTSQR
VSLRPGTCQPSAGSTVEASGLDLSCDIYIWAPLAGTCAFLLLSLVITVICNHRNRRRV
CKCPRPVVRAGGKPSPSERYV

- 1 atggcctctc cggtgactgc ccagctcctg ccgctggcct tgctgcttca tgccgccgca
- 61 gccgccgggc cgagcccgtt ccgcttatcg cccgtgaggg tggagggcag gctcggccag
- 121 cgggtggagc tgcagtgcga ggtgctgctg tccagcgcgg cgccgggctg cacctggctc
- 181 ttccagaaga acgaacetge egecegeece atetteetgg egtacetete cagaageegg
- 241 accaagttgg ccgaggagct ggaccccaaa cagatctcgg gccagaggat tcaggacacc
- 301 ctctacagtc tcaccctgca cagattccgc aaggaggaag aaggctacta tttctgctcg
- 361 gtcgtgagca actccgttct gtacttcagc gccttcgtcc cggtcttcct gccagtcaag
- 421 cccaccacta cgcccgcgcc gcgaccgccc acgcaggcgc ccatcaccac gtcgcagcgg
- 481 gtgtctctgc gcccggggac ctgccagcct tcagcgggca gcacagtgga agcaagtggg
- 541 ctggatttgt cctgtgacat ctacatctgg gcacccctgg ctgggacctg cgccttcctt
- 601 ctcctgtcgc tggtcatcac cgtcatctgc aaccacagga accgaagacg tgtttgcaaa
- 661 tgtccgaggc ccgtggtcag agcaggaggc aagcctagcc cgtcagagag atacgtctaa
- 721 catggagatg ggccccatgc accagccact acaagaccaa ataaaactct ctttatgagg
- 781 acagt

AY065643
Sigmodon hispidus (Hispid cotton rat)
Complete CD8 alpha mRNA
Predicted polypeptide

MAPRVTRFLCLTLLLEFIAELGGSKDFEMSPKKVVAHLGKEVRL

TCEVWVSTSQGCSWLFLEHGSGVKPTFLIYLSGSRNERNNKIPSTKLSGKKEDKKYTL
TLNNFAKEDEGYYFCSVTSNSVVYFSPLVSVFLPEKPTTPVPKPPTSVPTTAISRSLR
PEACRPGAGTSVEKKGWDFDCDIIILAPLAGLCGVLLLSLVTTLICCHRNRKRVCKCP
RPVVRQGGKPSPSGKLV

<u>mRNA</u>

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121 aatgtctcct aagaaggtgg tcgcccacct tggcaaggag gtgaggctaa catgcgaagt
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421 tectetegtg teggtettte tgecagagaa acetaceaca eeagtgeega aaceaceac
481 atcagtgccc actacggcga tatctcggtc cctgcgacca gaagcttgcc gacctggagc
541 cggcacctca gtggagaaga agggatggga cttcgactgt gatatcatca ttttggcacc
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961 gttgctgcgt acatagcatg tgggggaagt acagaacagc tgtctgggtt ctcaggatca
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1081 gttgaaggtc agaaatgggg tgggcaggat ctgtgcacca ggagagaacc caagctgacg
1141 aaateeteae tggatggete agggaaettg eetetatate etgagttete tttatteagg
1201 cctgtgcctg gtagtgtgta ggctgagta

AJ130818
Saimiri sciureus (Common Squirrel Monkey)
Complete CD8 alpha mRNA

Predicted polypeptide

MASPVTALLLPLALLLHAARPSRFRVSPLDRTWNLGDKVELKCE
VLLSNPSSGCSWLFQKRGAAASPTFLLYISQTKPKVADGLDAQRFSGKKMGDSFILTL
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PQACRPPAGGAVDTRGLDFACDIYIWVPLAGTCGVLLLSLVITVYCNHRNRRRVCKCP
RPAVKSGGKPSPSERYV

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- 121 ctgaagtgcg aggtgctgct gtccaacccg tcctcgggct gctcgtggct cttccagaag
- 181 egeggegetg eegecagece cacetteete etgtacatet eecaaaceaa geccaaggtg
- 241 gccgatgggc tggacgccca gcgcttctcc ggcaagaaga tgggggacag cttcattctc
- 301 accetgegeg actteegega ggaggaceag ggettetatt tetgetegge eetgageaac
- 361 tocatcatgt acttcagece ettegtgeeg gtetteetge eagegaagee eaceaegaeg
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- 541 tgtgatatct acatctgggt gecettggee gggacetgeg gggteettet cetgteactg
- 601 gtcatcaccg tttattgcaa tcacaggaac cgacgacgtg tttgcaaatg tccccggcct
- 661 geggtcaagt etggaggcaa geecageeet teggagagat aegtetaa

Domains of the CD8 α -Chains

Leader

Transmembrane

Human CD8 α-Chain

Protein:

MALPVTALLPLALLHAARPSQFRVSPLDRTWNLGETVELKCQVLLSNPTSGCSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDTQRFSGKRLGDTFVLTLSDFRRENEGYYFCSALSNSIMYFSHFVPVFLPAKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGAVHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNRRRVCKCPRPVVKSGDKPSLSARYV

mRNA - coding

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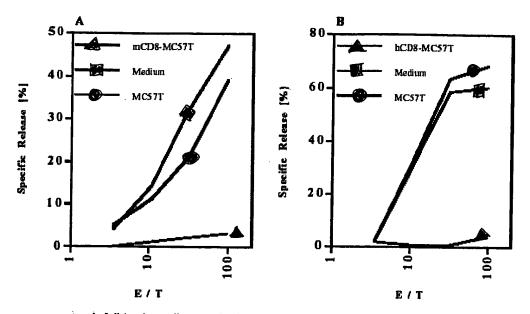
mouse CD8 α-Chain

Protein:

MASPLTRFLS LNLLLLGESI ILGSGEAKPQ APELRIFPKK MDAELGQKVD LVCEVLGSVS QGCSWLFQNS SSKLPQPTFV VYMASSHNKI TWDEKLNSSK LFSAMRDTNN KYVLTLNKFS KENEGYYFCS VISNSVMYFS SVVPVLQKVN STTTKPVLRT PSPVHPTGTS QPQRPEDCRP RGSVKGTGLD FACDIYIWAP LAGICVALLL SLIITLICYH RSRKRVCKCP SIACLCLKLQ GSKWYESVIC SALAVSIRCN KSKSGELPLA VHLDIRAPCK NWEIAGSLVE RYGKSGKHSP LSLKAVVESN

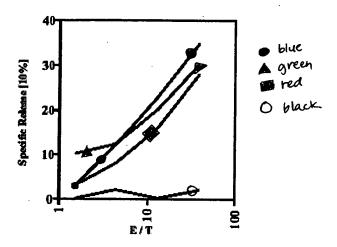
mRNA - Coding

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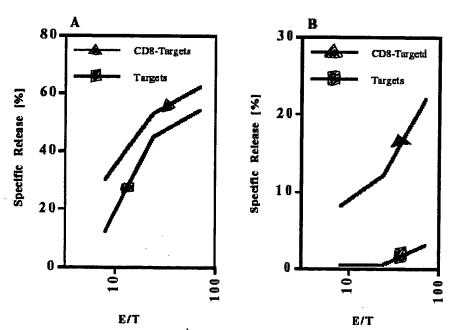
with normal fibroblasts (bluss), medium (sed) or fibroblasts with CD8 (special) of mouse (A) or human (B) origin. Cultures were harvested and tested for their lytic ability towards C57BL/6-derived target cells.

Figure 3



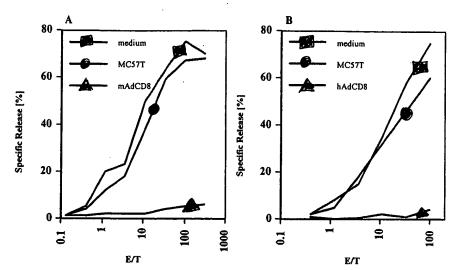
Balb/c (H-2d) mice were injected with control fibroblasts red and green) or inCD8-transfected C57BL/6-(H-2b) derived (black and blue) fibroblasts. After two weeks animals were sacrifized, spleen cells were barvested, stimulated with C57BL/6 (H-2b) (red and black) or CBA/J (H-2k) (blue and green) spleen cells and tested for their lytic ability on BLA (H-2b) (red and black) or S.AKR (H-2k) (blue and green) target cells.

Figure 4



Target cells (green) or CD8-expressing targets (red) were tested for their susceptibility to lysis by alloreactive T cells (A) or by antigen-specific CTLs (B).

Figure 5



Circle MLCs (Balb/c anti-C57BL/6) were set up in the presence of normal fibroblasts (blue) and fibroblasts transduced with mAdCD8 (A, green) or hAdCD8 (B, green). No fibroblasts were added to control cultures (red). The lytic activity of these cultures towards an C57BL/6-derived target was determined at the end of the culture period.

Figure 6

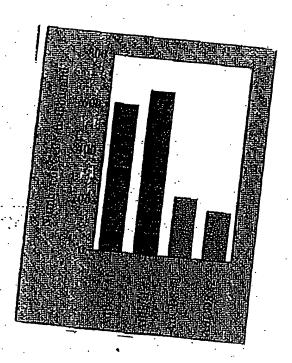


FIGURE 7

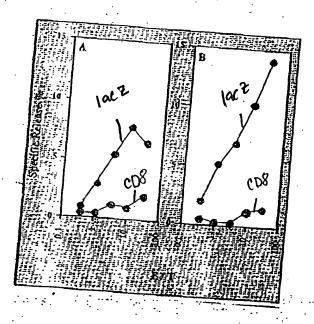
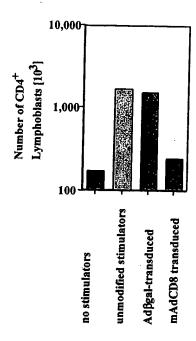


FIGURE 8



 $3x10^6$ C7Bl/6 spleen cells were incubated with $1x10^6$ (or no) stimulator cells, transduced as indicated. After 4 days the cultures were analyzed for presence CD4 $^+$ T lymphoblasts by immunofluorescence.

Figure 9

FIGURE 10A

Infected Cells: MC57T Fibroblasts
Panel 1: Mock-Infection; Panel 2: Infection with hAdCD8

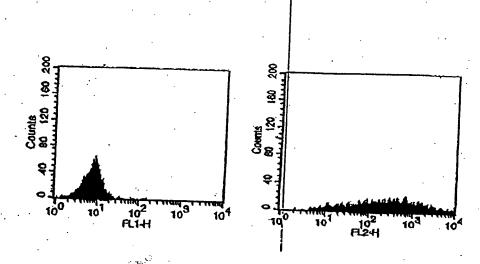
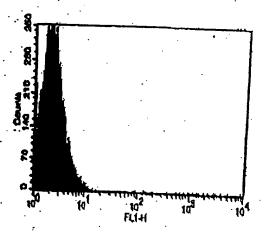


FIGURE 10B

Infected Cells: MC57T Pibroblasts
Panel 1: Mock-Infection; Panel 2: Infection with mAdCD8



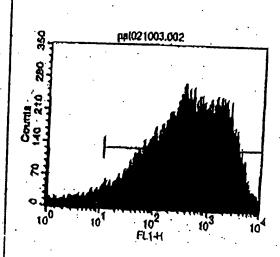
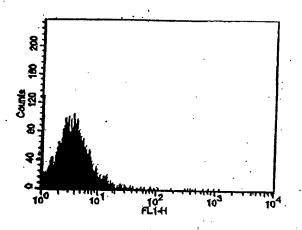


FIGURE 10C

Infected Cells: Balbe unsplected bone marrow cells: Panel 1: Infection with lacZ Adenoviral Vector (AdLacZ);

Panel 2: Infection with mAdCD8



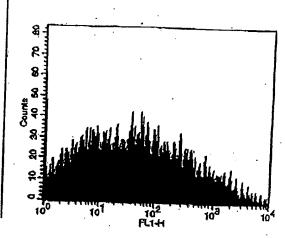
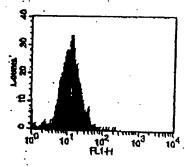


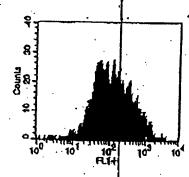
FIGURE 10D

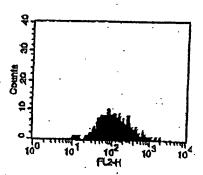
Infected Cells: MC57T Fibroblasts

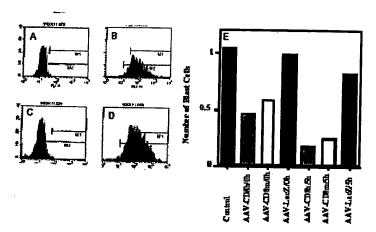
Panel 1: Mock-Infection;

Panel 2: Infection with pAAV-mCD8; Panel 3: Infection with pAAV-hCD8









Fibroblasts were transduced with mAAVCD8 (B) or hAAVCD8 (D) or mock-infected (A and C). Surface expression of CD8 was detected by surface immunofluorescence (A through D). MLCs (Balb/c anti-C57BL/6) were set up in the presence of these fibroblasts that had been cultured for 0 or 5 hours after transduction before they were added to the MLCs. At end of cultures, the number of lymphoblasts was determined on a fluorescence activated cell analyzer.

Figure 11

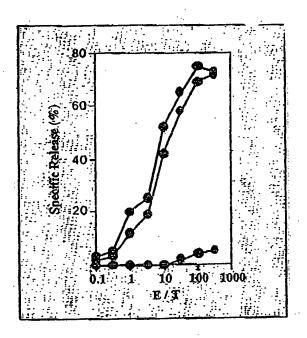
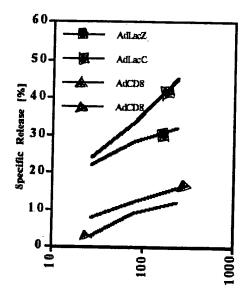


FIGURE 12



Halb'c mise were immunized with AdLacZ (green) or mAdCD8 (sed). Their spleen cells were cultured in the presence of AdLacZ and tested for specific lytic activity against AdLacZ infected syngencic P815 target cells.

Figure 13

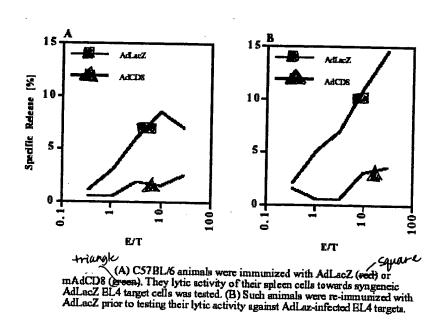
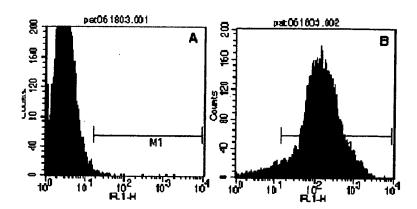
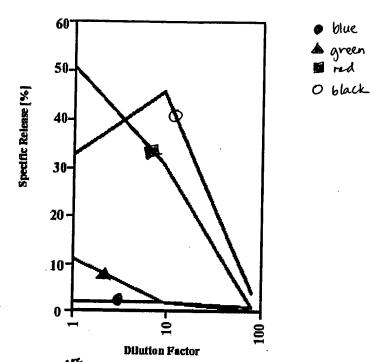


Figure 14A-B



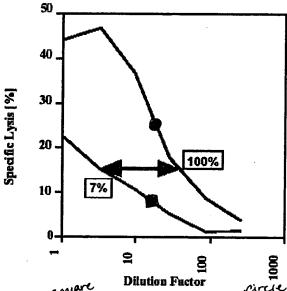
Single cell suspensions were prepared from newborn hearts. The heart muscle cells were transduced with mAdCD8 (B) or rnock-infected, cultured for 48 hours and stained for the surface expression of CD8.

Figure 15



Newborn C57BL/6 hearts were infected with 109 (red), 5x107(green), 107(blue) PFU AdCDB or mock-infected (black). Thirtyfive days after transplantation into BALB/c recipients, the activity of the lytic activity of activated recipient T cells was tested on donor-type target cells.

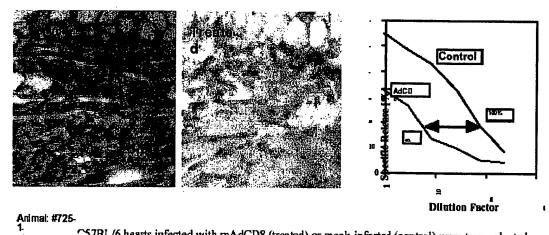
Figure 16



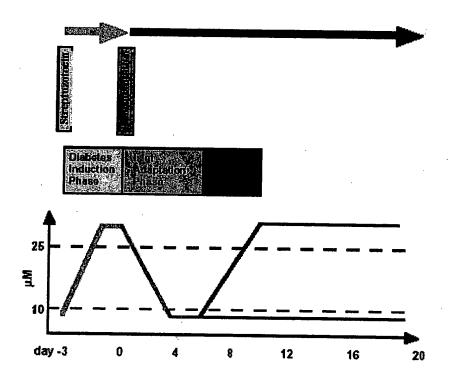
Dilution Factor

Newborn C57BL/6 hearts were infected with AdCD8 (red) or mock-infected (black). Thirtyeight days after transplantation into BALB/c recipients, the activity of the lytic activity of activated recipient T cells was tested on donor-type target cells.

Figure 17

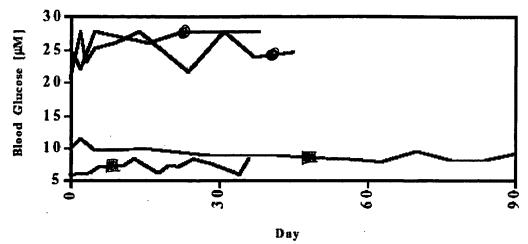


257BL/6 hearts infected with mAdCD8 (treated) or mock-infected (control) were transplanted into Balb/c mice. After 52 days, the animals were sacrificed and the tissue was stained (HE) and the lytic activity of recipient T cells was tested on donor-type target cells.



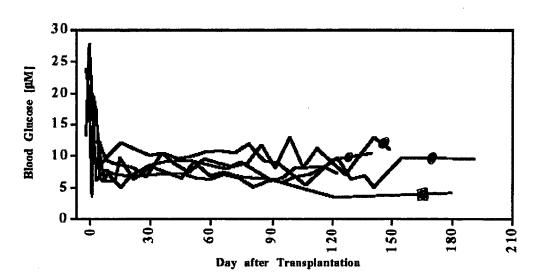
Pancreatic islet transplantation protocol.

Figure 19



Blood glucose levels in normal (red) and Streptpzotocin-treated (blue) mice.

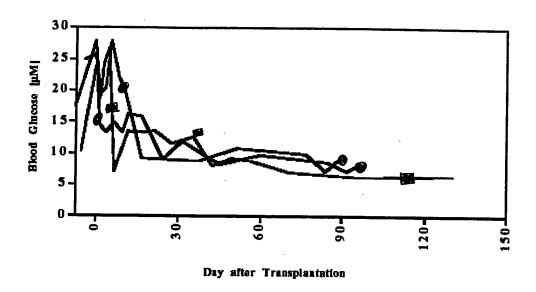
Figure 20



Square coile.

Syngeneic pancreatic islet transplants performed in Balb/c (sed) and in C57BL/6 (blue) mice.

Figure 21



Transplantation of syngeneic mAdCD8-transduced pancreactic islets harvested from Balb/c (blue) or C57BL/6 (red) mice.

Figure 22

Allogeneic Islet Transplantation

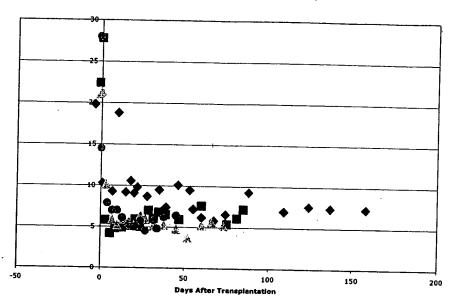


Figure 23

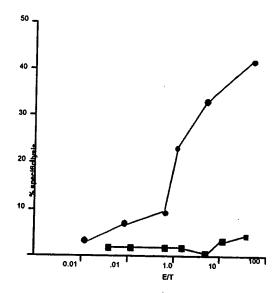
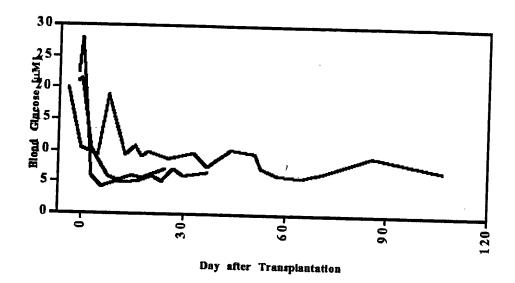


Figure 24



Balb/c recipient mice.

Figure 25